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EXAMINER	
SHAW, PELING ANDY	
ART UNIT	PAPER NUMBER
2444	

NOTIFICATION DATE	DELIVERY MODE
02/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/815,240	DE LA IGLESIA ET AL.	
	Examiner	Art Unit	
	PELING A. SHAW	2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/25/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/25/2009 has been entered. No claim is amended. Claims 1-20 are currently pending.

2. Amendment received on 04/30/2009 was entered into record. Claims 1, 12 and 17 were amended.

3. Applicant's submission filed on 02/09/2009 was entered. The amendment to the specification to change the title of application was reviewed and accepted. Claims 1, 12 and 17 were amended.

4. Amendment received on 08/20/2008 has been entered into record. Claims 1, 12-13 and 17-20 are amended.

Priority

5. This application has claimed priority from provisional application 60528643 filed on 12/10/2003. The filing date is 03/30/2004.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley et al. (US 7277957 B2), hereinafter referred as Rowley and further in view of Saulpaugh et al. (US 7072967 B1), hereinafter referred as Saulpaugh.

a. Rowley shows (claim 1) an apparatus (Fig. 1 and Fig. 2) comprising: a network interface module to connect the apparatus to a network (column 3, lines 28-33; Ethernet card as a network tap device); a packet capture module to intercept packets being transmitted on the network (column 3, lines 33-35: a packet capture engine); an object assembly module to reconstruct flows representing objects being transmitted on the network from the intercepted packets (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files), the packets associated with a document (column 4, lines 29-34: packets reconstructed into data and script files for web pages and other contents), wherein objects are captured based on a capture rule that specifies the

objects, and wherein a determination is made as to whether to discard or to store the objects (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session); an object classification module to determine a type of content of (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages; multi-packet recompilation module set similar directories for local cache of files) and reconstruct objects from flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); an object store module to store the objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved); and a user interface to enable a user to search objects stored in the object store module (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor). Rowley does not explicitly show (claim 1) the document includes the objects; wherein the objects are searched based a query, which includes search criteria used to identify selected objects that match the search criteria. Rowley does show (claim 1) however using browser to search and identify objects based upon search criteria seems to be known to one skill in the art.

b. Saulpaugh shows reconstructing objects from XML data stream (column 82, lines 28-52); search based on search criteria (column 33, line 55-column 34, line 3); database

query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9) in an analogous art for the purpose of efficient construction of message endpoints.

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of reconstructing objects from XML data stream and message query based on name or string.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to data selection or query based on name or string as per Saulpaugh's teaching in support the display of data collected and reconstructed as per Rowley (column 1, lines 54-65) and Saulpaugh (column 82, lines 28-52)'s teaching.

e. Regarding claim 2, Rowley shows wherein the object assembly module comprises a reassembler to assemble the intercepted packets into flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

f. Regarding claim 3, Rowley shows wherein the object assembly module further comprises a protocol demultiplexer to sort the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65:

local cache holding word processing documents, PDF files, audio files and video files).

g. Regarding claim 4, Rowley shows wherein the object assembly module further comprises a protocol classifier to extract the objects from the sorted assembled flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

h. Regarding claim 5, Rowley shows wherein the object classification module determines whether objects are stored in the object store or discarded based on one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).

i. Regarding claim 6, Rowley shows wherein the capture rules are user-configurable through the user interface (column 1, line 66-column 2, line 9: selecting a portion of the packets captured by a sniffer during a giving time interval; column 3, lines 43-47: selecting captured data during a specified time interval).

j. Regarding claim 7, Rowley shows wherein the object classification module determines a location that each object is stored in the object store based on the type of content of each object (column 6, lines 38-48: directory structure based on image file type; column 6, lines 49-65: directory structure for graphics files, text files, audio files and video files).

k. Regarding claim 8, Saulpaugh shows wherein the object classification module determines the type of content of each object using a signature of each object (column 82, lines 28-52: an object signature may be included to identify the object's class).

l. Regarding claim 9, Rowley shows wherein the user interface comprises a graphical user interface (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

Together Rowley and Saulpaugh disclosed all limitations of claims 1-9. Claims 1-9 are rejected under 35 U.S.C. 103(a).

7. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley, Saulpaugh and further in view of Barnett et al. (US 7290048 B1), hereinafter referred as Barnett.

a. Rowley shows claim 1 as above. Neither Rowley nor Saulpaugh shows (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list; selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session.

b. Barnett shows (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data

collection, data analysis, and model generation for the performance analysis of enterprise applications.

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of message query based on name or string and Barnett's functions of using tags in support of performance analysis.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65), Saulpaugh (column 82, lines 28-52) and Barnett (column 7, lines 35-45)'s teaching.

e. Regarding claim 11, Barnett shows wherein the content store comprises a canonical storage, and the tag store comprises a database (column 12, lines 4-12: canonical form for abstract module, sources supply lines information form text file, binary file or database; column 13, lines 26-48: data consists of network traces consisting of arrays mutated into hash tables to be addresses by column header vs. row and column locations).

Together Rowley, Saulpaugh and Barnett disclosed all limitations of claims 10-11. Claims 10-11 are rejected under 35 U.S.C. 103(a).

8. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley in view of Saulpaugh and Barnett.

a. Rowley shows (claim 12) an method comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing flows

of objects being transmitted on the network from the intercepted data (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); classifying the reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages)), the data associated with a document (column 4, lines 29-34: packets reconstructed into data and script files for web pages and other contents), wherein objects are captured based on a capture rule that specifies the objects, and wherein a determination is made as to whether to discard or to store the objects (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session; and storing the classified objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved). Rowley does not show (claim 12) the document includes the objects; creating a tag to describe each reconstructed object; storing tags; indexing the stored objects to enable searching of the stored objects via the tags; and wherein the objects are searched based on a query, which includes search criteria used to identify selected objects that match the search criteria. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list as per IP address and port number to

categorize packets (column 4, lines 42-65); selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session, including the directory and file structures (column 7, lines 37-51).

b. Barnett shows (claim 12) creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data collection, data analysis, and model generation for the performance analysis of enterprise applications.

c. Saulpaugh shows reconstructing objects from XML data stream (column 82, lines 28-52); search based on search criteria (column 33, line 55-column 34, line 3); database query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9) in an analogous art for the purpose of efficient construction of message endpoints.

d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of reconstructing objects from XML data stream and message query based on name or string and Barnett's functions of using tags in support of performance analysis.

e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65), Saulpaugh (column 82, lines 28-52) and Barnett (column 7, lines 35-45)'s teaching.

f. Regarding claim 13, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

g. Regarding claim 14, Rowley shows further comprising determining whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).

h. Regarding claim 15, Saulpaugh shows further comprising receiving a query over the stored objects (column 27, lines 10-29: query for a message response).

i. Regarding claim 16, Saulpaugh shows further comprising searching the indexed objects, and retrieving objects matching the query (column 41, line 60-column 42, lines 10: database query based upon name or strings; column 48, lines 33-52: query results cache);

j. Regarding claim 17, Rowley shows an machine-readable storage medium having stored thereon data representing instructions (Fig. 1 and Fig. 2) that, when executed

by a processor, cause the processor to perform operations comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing objects being transmitted on the network from the intercepted data (column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content); classifying the reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages), the data associated with a document (column 4, lines 29-34: packets reconstructed into data and script files for web pages and other contents) identifying characteristic of the document (column 5, lines 28-37: indicates a file with characteristics), wherein objects are captured based on a capture rule that specifies the objects, and wherein a determination is made as to whether to discard or to store the objects (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session); and storing the classified objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved). Barnett shows creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information). Saulpaugh shows reconstructing objects

from XML data stream (column 82, lines 28-52); search based on search criteria (column 33, line 55-column 34, line 3); database query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9). Claim 17 is of substantially same scope as claim 12. Thus the reasoning and motivation to combine of Rowley, Saulpaugh and Bameet as applied to claim 12 apply to claim 17.

k. Regarding claim 18, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

l. Regarding claim 19, Rowley shows wherein the instructions further cause the processor to determine whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).

m. Regarding claim 20, Saulpaugh shows wherein the instructions further cause the processor to receive a query over the stored objects, search the indexed objects in response to the query, and retrieve objects matching the query (column 27, lines 10-29: query for a message response; column 41, line 60-column 42, lines 10: database query based upon name or strings; column 48, lines 33-52: query results cache).

Together Rowley, Saulpaugh and Barnett disclosed all limitations of claims 12-20. Claims 12-20 are rejected under 35 U.S.C. 103(a).

Response to Arguments

9. Applicant's arguments filed on 11/25/2009 have been fully considered, but they are not persuasive.

a. Applicant did not amend claim set. Applicant has repeated a similar argument as per 3rd paragraph on page 8 through last paragraph on page 9 of a previous amendment received on 10/20/09 (see last paragraph on page 8 through last paragraph on page 9 of current amendment). An Advisory Action was issued on 11/09/2009 in response to the argument as per previous amendment.

b. Examiner has reviewed the argument and found that Rowley has further described (column 1, line 66-column 2, line 9) selecting a portion of the packets captured by a sniffer during a giving time interval. Rowley has described (column 4, lines 29-34) that packets selected, captured and sorted into the protocol sorted list, the data from the selected packets are reconstructed into data and script files for web pages and other contents. Rowley has described (column 3, lines 62-67) packet not needed for the subsequent reconstruction of the network communication session is not included in the protocol sorted list, e.g. DN lookup request packets, error packets or corrupted packets. Rowley has taught and suggested some rule is applied to select, capture and store the packets for the reconstruction of network communication session. Saulpaugh on reconstructing objects from XML data stream (column 82, lines 28-52) and from Rowley on packets reconstructed into data and script files for web pages and other contents (column 4, lines 29-34), together Rowley and Saulpaugh have disclosed the argued limitation. The ability to identify the contents to be captured is well known

and disclosed by Rowley and Saulpaugh as applied to reconstruct objects from XML data stream per Saulpaugh's teaching and are also disclosed as a filter function specified in Chapter 3 with specific filer fields definitions for various known protocols in Appendix A of Applicant's IDS (received on 08/20/2008) item "Etherreal User's Guide". Examiner has also searched and found that Rowley has described (column 1, lines 24-35, column 6, lines 49-65 and column 7, line 66- column 8, line 7) reconstructing a network communication session with web browser's cache containing various files, e.g. audio and video binary object files. Examiner has further noticed that applicant's claim 4 has specifically mentioned using protocol classifier to extract the objects from the sorted assembled flowed as disclosed by Rowley (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the statu9s of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peling A Shaw/
Examiner, Art Unit 2444